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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,937	05/10/2001	Akira Harada	35.C15506	4055

5514 7590 05/28/2003

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EXAMINER

SCHWARTZ, JORDAN MARC

ART UNIT	PAPER NUMBER
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2873

DATE MAILED: 05/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/851,937

Applicant(s)

HARADA, AKIRA

Examiner

Jordan M. Schwartz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) 5-50 and 52-58 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.7.9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Restriction/Election

Applicant's election with traverse of Group I, claims 1-4 and 51, in Paper No. 10 is acknowledged. The traversal is on the ground(s) that it would not be an undue burden on the examiner to search all of the pending claims together. This is not found persuasive because as set forth in the Election/Restriction, applicant has claimed numerous species of lens systems having a diffractive surface. It is not uncommon for a lens system to have a diffractive surface. Each species would require a completely different search and would clearly create an undue burden on the examiner if the examiner were to examine all of the claims together.

The requirement is still deemed proper and is therefore made FINAL.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

Claims 1-2 and 4 (and dependent claims 3 and 51) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In reference to claim 1, applicant is defining β as the "maximum photographic magnification" which renders the claim vague and indefinite. Specifically, applicant has not claimed the system as "A photographic lens system" but instead is broadly claiming "A lens system" which can be a photocopier, scanner, eyeglasses, etc. Therefore, defining β in terms of "photographic" renders the claim vague and indefinite because it is not clear if photographic is intended as a limitation or not. If photographic is intended as a limitation then it needs to be more positively and distinctly claimed. For purposes of examination it is assumed that photographic was not intended as a limitation (since nowhere else in the claim is it stated that the system is photographic) and therefore the assumed definition of β (for purposes of examination) is "a maximum magnification".

In reference to claim 2, applicant is claiming "wherein part of the lens system moves" and it is not clear if the intended meaning is that "only part of the lens system moves for focusing" or "at least part of the lens system moves for focusing" (the latter being the assumed meaning for purposes of examination) and the lack of clarity renders the claim vague and indefinite. Further clarity is required.

In reference to claim 4, applicant is defining ΔS in terms "a maximum moving distance of the whole of said lens system during focusing" however, applicant has not positively and distinctly claimed that the whole of the lens system is moving for focusing. Specifically, claim 1, from which claim 4 depends, claims "moving the whole or part of

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the lens system during focusing". If moving the whole of the lens system during focusing is an intended limitation of claim 4 (as is herein assumed for purposes of examination) then it needs to be more positively and distinctly claimed i.e. "The lens system according to claim 1, in which the whole of said lens system moves during focusing, which satisfies the following condition:...".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 4 and 51 are rejected under 35 U.S.C. 102(e) as being anticipated by Kuiseko et al.

Kuiseko et al discloses the limitations therein including the following: a lens system (Figure 8) comprising a plurality of lenses (Figure 8); a stop (Figure 8, "S"); a diffractive surface (paragraph 0196); the lens system satisfying the condition of claim 1 (paragraph 0010 i.e. if the system provides magnification of 1x then the maximum magnification of the system must at least be greater than 0.5). The system of Kuiseko et al is disclosed as a projection apparatus (paragraphs 0003 and 0005) and therefore the system would inherently have to move at least the whole or part of the projection apparatus in order for the device to come into focus. Kuiseko et al further discloses the

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plurality of lenses arranged substantially symmetric to the stop (Figure 8, Table 1). A projection apparatus of Kuiseko et al would inherently be housed in a housing to hold the lens system. It is believed that the lens system of Kuiseko et al would inherently satisfy the condition of claim 4, this being reasonably based upon the large range claimed (greater than 1), based upon what is disclosed in the embodiments, and based upon the similarity in structure between the optical system of Kuiseko et al and that of the claimed invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bietry patent no. 5,909,322.

Bietry discloses the limitations therein including the following: a lens system (Figure 1) comprising a plurality of lenses (Figure 1); a stop (Figure 1, "10", Table 1); a diffractive surface (column 4, lines 1-7, Table 1); the lens system satisfying the condition of claim 1 (column 2, line 35 i.e. if the system provides magnification of 16x then the maximum magnification of the system must at least be greater than 0.5). The system of Bietry is disclosed as a magnifier (abstract) and one would inherently have to move a magnifier (at least in whole or in part) in order for the device to come into focus. Regardless, Bietry discloses that the magnifier can be used as a viewfinder lens

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(column 3, lines 36). The examiner takes Judicial Notice that it is well known in the art of viewfinder optical systems to move the viewfinder either in whole or in part in order to provide the required focusing. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the viewfinder system of Bietry, moving either the whole of the system or part of the system for focusing, since that it is well known in the art of viewfinder optical systems to move a viewfinder either in whole or in part in order to provide the required focusing. Bietry further discloses compliance with the claim 3 condition (column 6, lines 20-29 and the embodiments of Tables 5 and 6). A viewfinder of Bietry would inherently be housed in a housing to hold the lens system.

Examiner's Comments

Suzuki publication number 2003/0021031 is being cited herein to show an optical system that would at least read on claims 1 and 51, however such rejections would have been repetitive (see Figure 1, paragraph 0190 re the lenses and stop, paragraph 0123 re the diffractive lens surface and paragraph 0201 re satisfaction of the condition of claim 1).

Ohno and Nakai are being cited herein because together they would at least make obvious claims 1-2 and 51, however, such rejections would have been repetitive. Ohno discloses a photographic lens that includes a plurality of lenses, a stop, the lenses symmetrically arranged around the stop (Figure 1) and compliance with the condition of claim 1 (column 2, line 19 re enlargement prints so would therefore inherently have a maximum magnification greater than 0.5). Ohno further discloses the use of an aspheric

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surface to correct chromatic aberrations (column 3, lines 33-44) and Nakai teaches that a diffractive optical element can be used in a lens system in place of an aspherical surface to provide chromatic aberration correction.

Broome is being cited herein to show a lens system that would at least read on claims 1 and 51, however, such rejections would have been repetitive (Figures and column 2, lines 12-27).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jordan M. Schwartz whose telephone number is (703) 308-1286. The examiner can normally be reached on Monday to Friday (8:00-5:30), alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached at (703) 308-4883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Jordan M. Schwartz
Primary Examiner
Art Unit 2873
May 13, 2003